

## REMARKS

1. Applicant thanks the Examiner for the Examiner's comments, which have greatly assisted Applicant in responding.

Applicant also thanks the Examiner for his courtesy in talking briefly to Julia Thomas explaining in general his position regarding the requirements for 35 U.S.C. §101, 35 U.S.C. §112, and for suggesting that the client files an RCE, due to the correctly submitted IDS requiring further search on his part.

### 2. Information Disclosure Statement

The Information Disclosure Statement filed on August 17, 2006 stands defective for the reasons set forth:

(a) The Examiner asserted that USPN 4,730,529 as not invented by Gallant.

The digits in the U.S. Patent Number (USPN) to Gallant was inadvertently transposed. Applicant thanks the Examiner for informing Applicant of the unintentional error. Applicant has corrected the number in the IDS; the correct USPN is 4,730,259.

(b) The Examiner asserted that only a small portion of the listed non-patent documents were provided at the initial submission on October 1, 2001.

Applicant submits herewith a corrected IDS.

Applicant is of the opinion that the submitted IDS, providing all the documents that had not been provided at the initial submission overcomes the Examiner's objection and is a complete response. Applicant respectfully requests that the Examiner withdraw the objection to the IDS.

### 3. Claim Rejections – 35 USC §101

(a) Claims 1-35 stand rejected under 35 USC §101 for nonstatutory subject matter. The Examiner asserted that the invention is ineligible because it has not been limited to a substantial practical application.

Applicant respectfully traverses. Applicant incorporates amendments and arguments previously presented herein.

The Examiner's attention is directed to MPEP 2106.01, Computer-Related Nonstatutory Subject Matter, I. second paragraph, as follows (emphasis added):

Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program **and other claimed elements of a computer which permit the computer program's functionality to be realized**. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships **between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory**. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

Applicant has amended independent Claims 1, 18, 21, 23, and 27, which are computer implemented method claims, to further clarify the statutory nature of the invention, that is, language supporting interrelationships between the computer program (certain steps of the computer implemented method) and the rest of the computer (a display unit) which permit the computer program's functionality to be realized, and be thus statutory.

Support can be found at least in Fig. 29 and the accompanying text, as well as Claim 1 and Claim 31 of U.S. Patent No. 6,173,275, which is incorporated by reference in its entirety to the patent application.

Independent Claims 33 and 34 have been similarly amended.

Applicant is of the opinion that the amendment to the claims renders the independent Claims, and hence the dependent Claims, unambiguously drawn to statutory matter. Further, Applicant is of the opinion that the amendment to the Claims and the discussion hereinabove is a complete reply. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. 101.

(b) Claims 1-17 and 27-33 stand rejected under 35 USC §101 because the claimed invention lacks patentable utility.

Specifically, the Examiner asserted that "since Claim 1 @ step 2 eliminated information content with substantially orthogonal vectors, step three will always result in no proximal co-occurrence or the independent and related dependent claims will never convey any utility."

Applicant has amended Claims 1 and 27 by switching the previous steps one and two with each other. Support can be found at least in Fig. 34 and in the corresponding text on page 34, second paragraph reproduced hereinbelow for convenience (emphasis added):

Referring now to FIG. 34, **a method for initializing the system before bootstrapping** is shown. According to the present invention, each atom ID 311 (corresponding to atoms in atomic vocabulary 205) is associated 605 with a high-dimensional context vector 601. A high dimensional vector space is advantageous in that 1) initial values for each vector can be generated by using a random Gaussian distribution which results in nearly orthogonal vectors

(indicating no initial relationship between context vectors); 2) the information capacity of the vector space is very large when real valued vectors are used; and, 3) vector superposition allows summation of independent vectors into a single vector and later recovery of independent vectors via dot product. **Initial values of each element in the context vectors 601 are randomly generated by using a random Gaussian distribution 603. This results in nearly orthogonal vectors indicating no initial relationship between context vectors. Each atom ID 311 is randomly associated 605 with an initialized context vector 603.**

Accordingly, the amendment to Claims 1 and 27 is deemed to overcome the rejection to Claims 1 and 27 as well as the respective dependent Claims. Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. 101.

(b) Claims 23-26 stand rejected under 35 USC §101 because the claimed invention is directed to non-statutory subject matter.

The Examiner asserted that these Claims are not repeatable (concrete) because they are predicated on human interpretation.

Applicant respectfully traverses. The use of the word, human, shows an environment of use. The computer implemented methods are no different from any other: as they are executed, there is no means for human interpretation claimed. However, what is evident from the Written Description as well as from the Claims themselves is that they have been configured such that the information items represent in encoded form, generally speaking, language. Support can be found in the Specification at least on page 32, lines 20-21, reproduced hereinbelow (emphasis added):

As mentioned above, the context vectors **encode** the relative usage or, in some crude sense, the relative meaning of the element classes.

(On page 47, lines 23-27, emphasis added)

Human vision can perceive and interpret many dimensions of information **if the information is encoded and represented correctly. Context vector representation and high resolution displays are enabling technologies for visualization of textual information.** Display of information can be accomplished such that humans can "navigate" through abstract representations of textual databases. That is the purpose of the DOCUVERSE system.

Applicant has amended the Claims to eliminate the offending term in the spirit of compact prosecution and to further clarify the configurable and encoding nature of the claimed computer implemented methods.

Applicant is of the opinion that the amendment to the Claims and the discussion hereinabove deem the rejection overcome. Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. 101.

**4. Claim Rejections – 35 USC 112, first paragraph**

Claims 1-17 and 27-33 stand rejected under 35 USC §112, first paragraph because current case law and accordingly, the MPEP require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application.

This rejection is moot because the rejections under 35 U.S.C. 101 are deemed overcome. Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. 112, first paragraph.

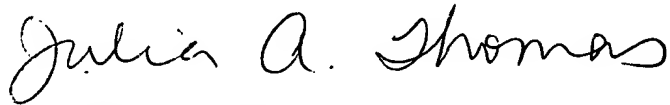
5. It should be appreciated that Applicant has elected to amend the Claims solely for the purpose of expediting the patent application process in a manner consistent with

the PTO's Patent Business Goals, 65 Fed. Reg. 54603 (9/8/00). In making such amendment, Applicant has not and does not in any way narrow the scope of protection to which Applicant considers the invention herein to be entitled. Rather, Applicant reserves Applicant's right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

## CONCLUSION

Based on the foregoing, Applicant considers the present invention to be distinguished from the art of record. Accordingly, Applicant earnestly solicits the Examiner's withdrawal of the rejections raised in the above referenced Office Action, such that a Notice of Allowance is forwarded to Applicant, and the present application is therefore allowed to issue as a United States patent. The Examiner is invited to call to discuss the response.

Respectfully submitted,

A handwritten signature in cursive script that reads "Julia A. Thomas".

Julia A. Thomas

Reg. No. 52,283

Customer No. 22862